

A

FIGURE 1.

FIGURE 2.

Human DB1 DNA and Protein Sequences:

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      10      20      30      40      50      60
AGCGGGGGGAGTGGGGAGGAGGGGGGTCGGCCGCCGAGCCATGGAGGCCAACTGGACCG
                                     M E A N W T>

      70      80      90     100     110     120
CGTTCCTGTTCCAGGCCCATGAAGCTTCCCATCACCAACAGCAGGCAGCACAGAACAGCT
A F L F Q A H E A S H H Q Q Q A A Q N S>

     130     140     150     160     170     180
TGCTGCCCCCTCCTGAGCTCTGCCGTGGAGCCCCCTGATCAGAAACCATTGCTTCCAATAC
L L P L L S S A V E P P D Q K P L L P I>

     190     200     210     220     230     240
CAATAACTCAGAAACCTCAGGGTGCACCAGAAACATTAAAGGATGCCATTGGGATTAAAA
P I T Q K P Q G A P E T L K D A I G I K>

     250     260     270     280     290     300
AAGAAAAACCCAAAACCTTCATTTGTGTGCACTTACTGCAGTAAAGCTTTCAGGGACAGCT
K E K P K T S F V C T Y C S K A F R D S>

     310     320     330     340     350     360
ATCACCTGAGGCGCCACGAATCCTGCCACACAGGGATCAAGTTGGTGTCCCGGCCAAAGA
Y H L R R H E S C H T G I K L V S R P K>

     370     380     390     400     410     420
AAACCCCCACACGGTGGTTCCTTATCTCTACCATCGCTGGGGACAGCAGCCGAACCTT
K T P T T V V P L I S T I A G D S S R T>

     430     440     450     460     470     480
CGTTGGTCTCGACCATTGCAGGCATCTTGTCAACAGTCACTACATCTTCCTCGGGCACCA
S L V S T I A G I L S T V T T S S S G T>

     490     500     510     520     530     540
ACCCCAGTAGCAGTGCCAGCACCACAGCTATGCCAGTGACCCAGTCTGTCAAGAAACCCA
N P S S S A S T T A M P V T Q S V K K P>

     550     560     570     580     590     600
GTAAGCCTGTCAAGAAGAACCATGCTTGTGAGATGTGTGGGAAGGCCTTCCGAGATGTGT
S K P V K K N H A C E M C G K A F R D V>

     610     620     630     640     650     660
ACCATCTCAATCGACACAAGCTCTCCCATTCAGATGAGAAACCCTTTGAGTGTCTTATTT
Y H L N R H K L S H S D E K P F E C P I>

     670     680     690     700     710     720
GTAATCAGCGCTTCAAGAGGAAGGACCGGATGACTTACCATGTGAGGTCTCATGAAGGAG
C N Q R F K R K D R M T Y H V R S H E G>

     730     740     750     760     770     780
GCATCACCAAACCTATACTTGCAGTGTGTTGTGGGAAAGGCTTCTCAAGGCCTGACCACT
G I T K P Y T C S V C G K G F S R P D H>

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FIGURE 2 (CONT)

790 800 810 820 830 840
 TAAGCTGTCATGTAAAACATGTCCATTCAACAGAAAGACCCTTCAAATGCCAAACGTGCA
 L S C H V K H V H S T E R P F K C Q T C>

850 860 870 880 890 900
 CTGCTGCCTTTGCCACCAAAGACAGACTGCGGACACACATGGTGCGCCATGAAGGCAAGG
 T A A F A T K D R L R T H M V R H E G K>

910 920 930 940 950 960
 TATCATGTAACATCTGTGGGAAGCTCCTGAGTGCAGCATAACATCACCAGCCACTTAAAGA
 V S C N I C G K L L S A A Y I T S H L K>

970 980 990 1000 1010 1020
 CTCATGGGCAGAGCCAAAGTATCAACTGTAATACATGTAAACAAGGCATCAGTAAACAT
 T H G Q S Q S I N C N T C K Q G I S K T>

1030 1040 1050 1060 1070 1080
 GCATGAGTGAAGAGACCAGTAACCAAAAGCAGCAGCAGCAGCAGCAGCAACAACAAC
 C M S E E T S N Q K Q Q Q Q Q Q Q Q Q>

1090 1100 1110 1120 1130 1140
 AACACAACATGTGACAAGCTGGCCAGGGAAGCAAGTAGAAACACTCAGACTGTGGGAAG
 Q Q Q H V T S W P G K Q V E T L R L W E>

1150 1160 1170 1180 1190 1200
 AAGCTGTAAAGCAAGGAAGAAAGAAGCTGCTAACCTGTGCCAAACCTCCACGGCTGCTA
 E A V K A R K K E A A N L C Q T S T A A>

1210 1220 1230 1240 1250 1260
 CGACACCTGTGACTCTCACTACTCCATTTCAGTATAACATCCTCTGTGTCGTCTGAGACTA
 T T P V T L T T P F S I T S S V S S E T>

1270 1280 1290 1300 1310 1320
 TGTCAAACCCAGTCACAGTGGCAGCTGCAATGAGCATGAGAAGTCCAGTAAATGTTTCAA
 M S N P V T V A A A M S M R S P V N V S>

1330 1340 1350 1360 1370 1380
 GTGCAGTTAACATAACCAGCCCAATGAACATAGGGCATCCTGTAACCTATAACCAGTCCAT
 S A V N I T S P M N I G H P V T I T S P>

1390 1400 1410 1420 1430 1440
 TATCCATGACCTCTCCTTTAACTACTACTACCCAGTCAACCTCCCCACCCCGTCACTG
 L S M T S P L T L T T P V N L P T P V T>

1450 1460 1470 1480 1490 1500
 CCCCAGTGAATATAGCACACCCTGTCAACATCACATCTCCAATGAATCTACCCACACCTA
 A P V N I A H P V T I T S P M N L P T P>

1510 1520 1530 1540 1550 1560
 TGACATTAGCCGCCCTCTCAATATAGCAATGAGACCTGTAGAGAGCATGCCTTTCTTGC
 M T L A A P L N I A M R P V E S M P F L>

FIGURE 2 (cont)

1570 1580 1590 1600 1610 1620
CCCAAGCTTTGCCTACATCACCGCCTTGGTAAACAGTATTATAAAATCAAATATGGGTA
P Q A L P T S P P W *>

1630 1640 1650 1660 1670 1680
AAAGTAAATATTTACCAGCAACTTAACTTTTAGTTGATTAAAGCAAAAAGTAAACCATGA

1690 1700 1710 1720 1730 1740
AATTGGGAGATTTTATTACATTAGTTAATAAGAGTGTGGTAGCATTTTCTCCAATTTGG

1750 1760 1770 1780 1790 1800
CTGGGATTATTCAAAGTAGGGTGTGTATGTAACCTTATCACTGGACCACTTTAGTTTAAATC

1810 1820 1830 1840 1850 1860
AGAAATTCCTTTTAGCTGACAACATTGCTTAAACAGGATAGTAGTTGGCAAGATGAAATG

1870 1880 1890 1900 1910 1920
CCAGAATTAAACCAATCATAAGTAGAACCCACTTCAAAATAAAAAACAGCATTACTAT

1930 1940 1950 1960 1970 1980
TTCTAATCCCAAGGAATCACTTTATTGTAAACACTAGCAGAACTCTTCTCCCTATACAAG

1990 2000 2010 2020 2030 2040
GTGGATGGCTGATTTTAAACCTGAAATTTTAAATCCACAGATTGAGAGCTAGTGTAGAATT

2050 2060 2070 2080 2090 2100
GTCTGTGTTTATTGTTTTTATGAGTAAATACATGCATTGTCATAATAAATGCATTTTCAG

2110 2120 2130 2140 2150 2160
AGAATATGCATTTTACCTTTGGGAATATGTTAATTTTCAGGCAGCATTCCTATGGGAAAG

2170 2180 2190 2200 2210 2220
GTGATACCAGCTCTGATATGCAAAGCATATGATAATTTATCATTCTAACTTCAACGTATA

2230 2240 2250 2260 2270 2280
ATAGGGATTGTGACCTGATATTTGGAGATGTAAATATTGCTCAGCATATTAATCCCGATG

2290 2300
GAATATAGCATTTAGTTGACTTTTT

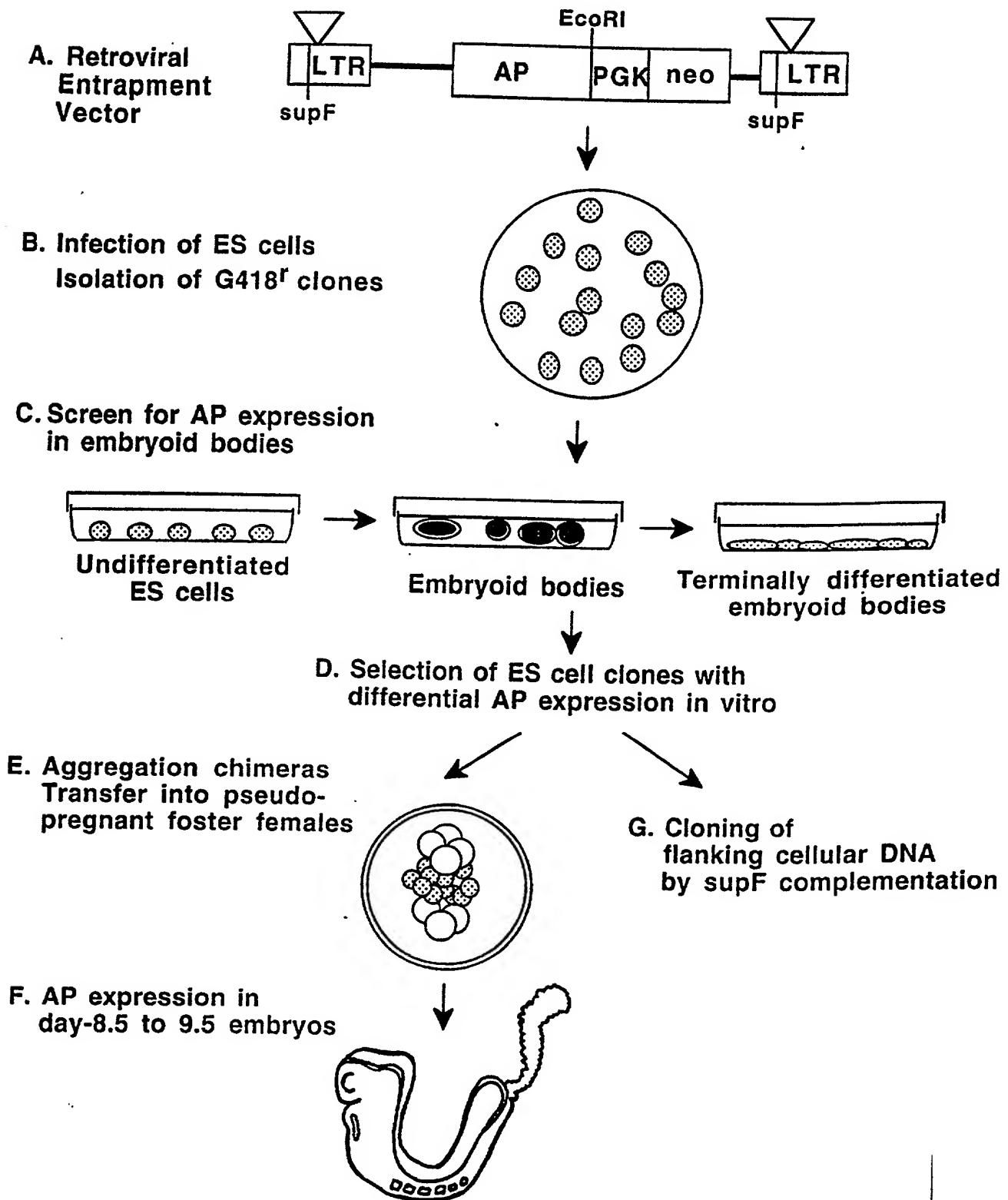


FIGURE 3.

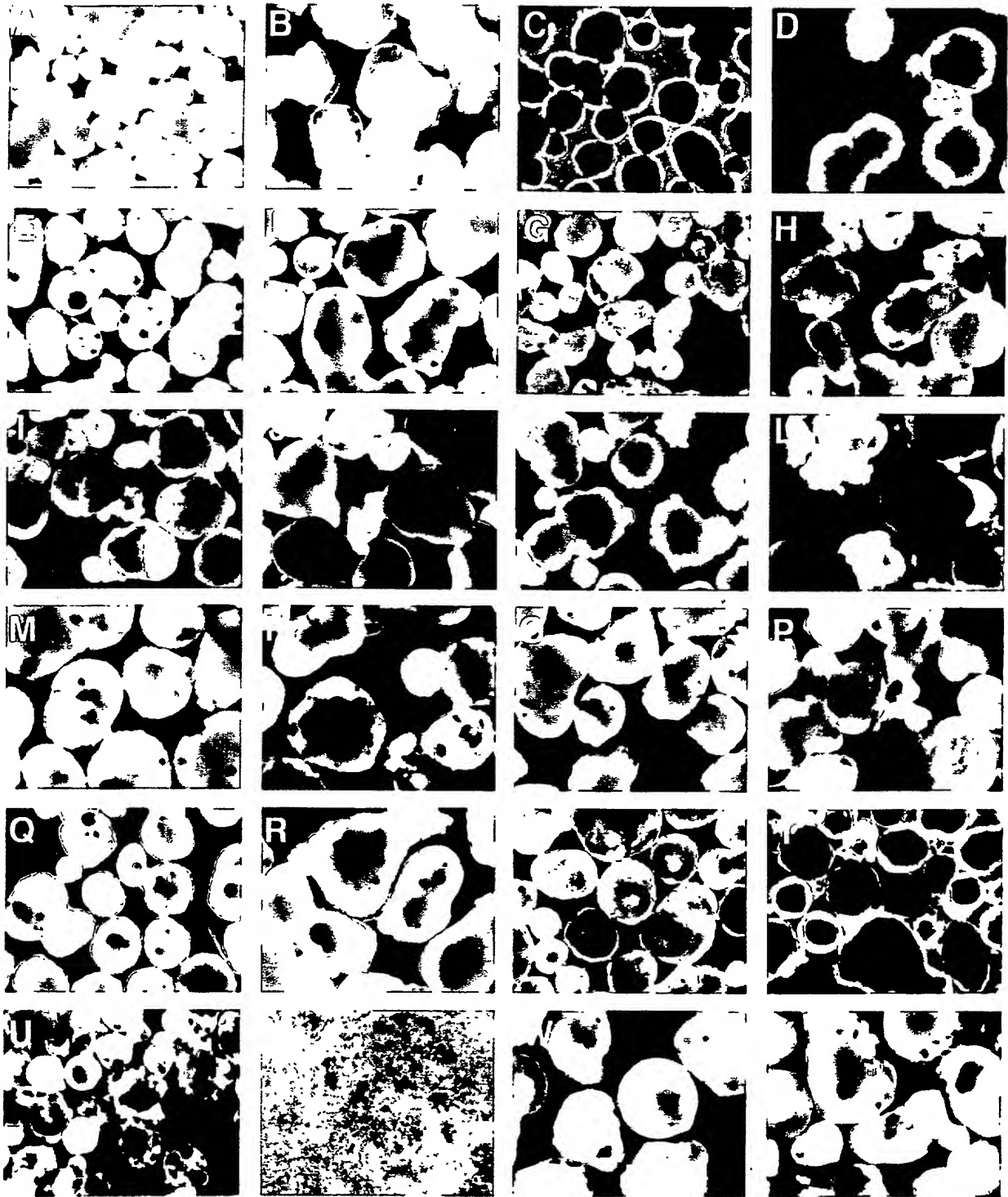


FIGURE 4.

21200 (sheet 7 of 20)

202710 FEB 500T

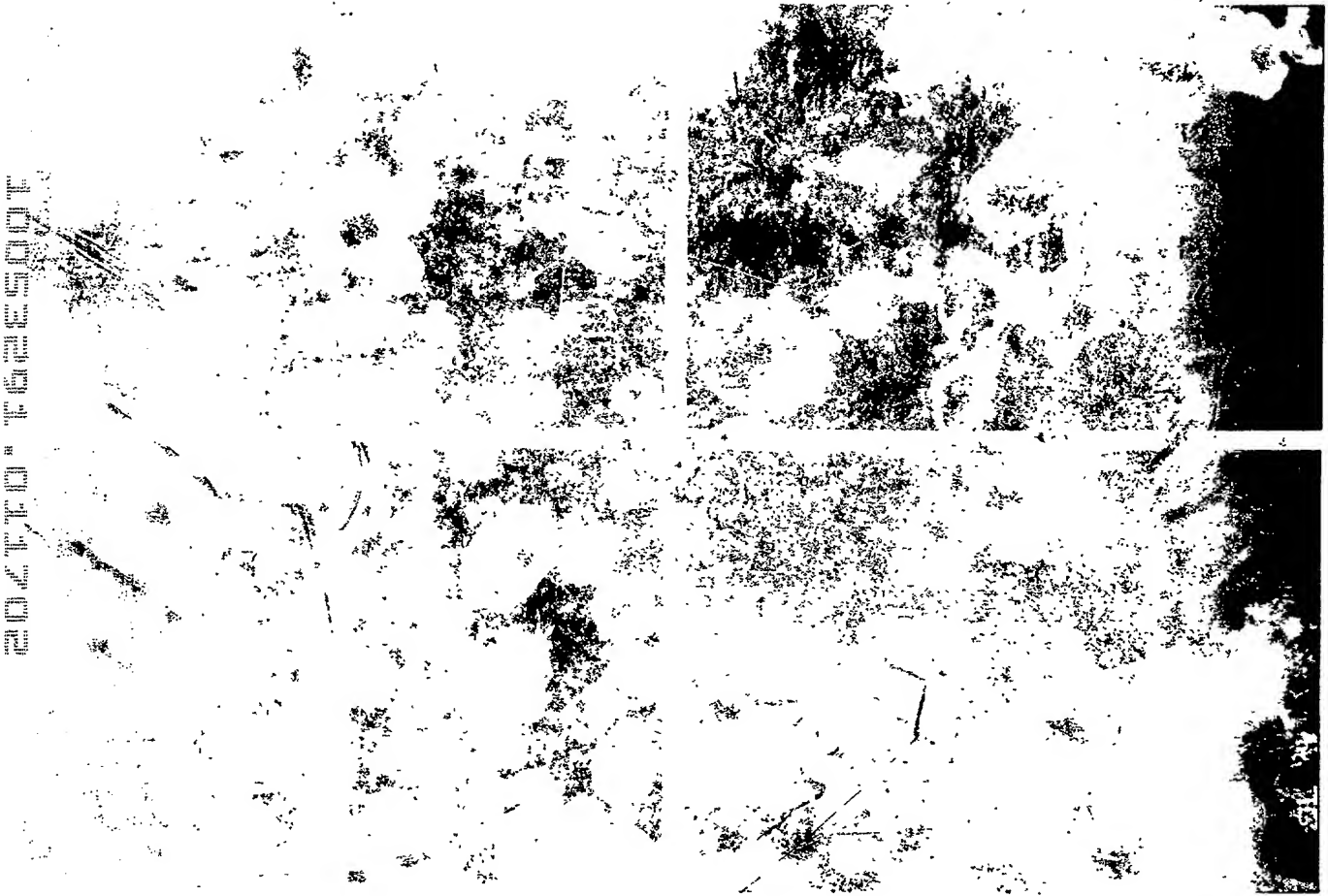
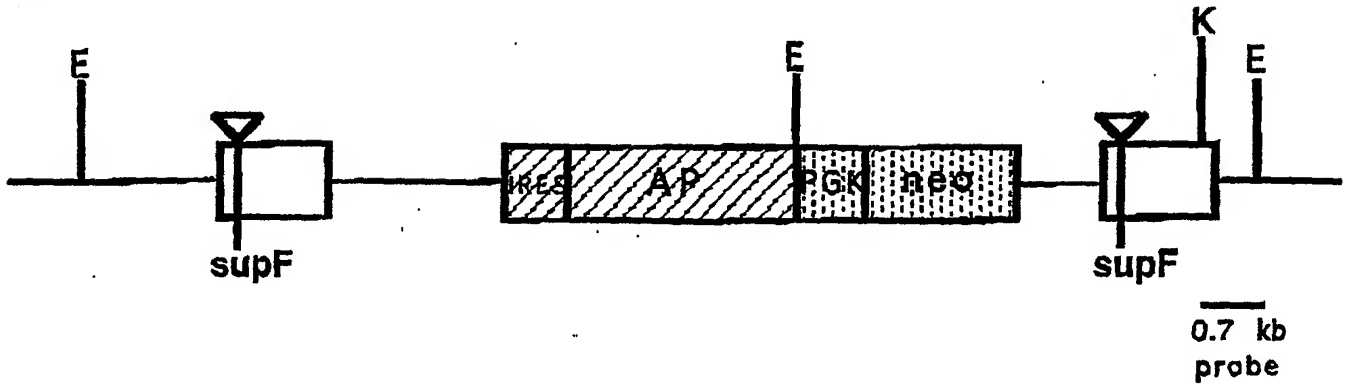


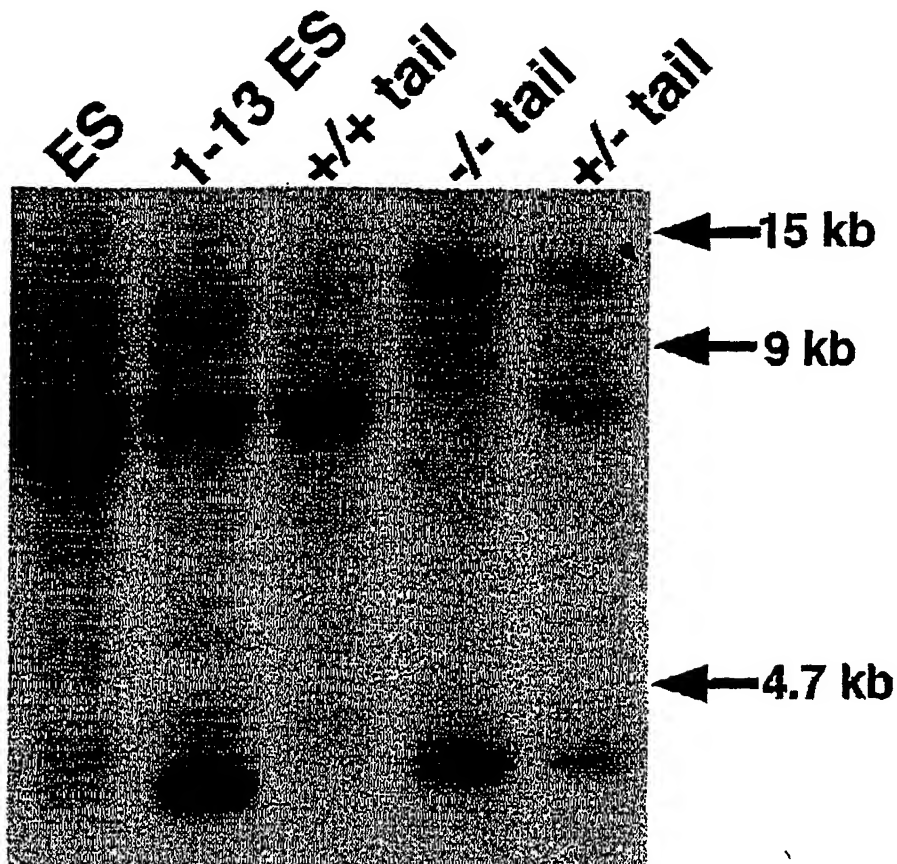
FIGURE 5.

FIGURE 6.

A:



B:



Alignment of Vezf1/mPurl:

FIGURE 7.

(a) 26 (approx) 600/8

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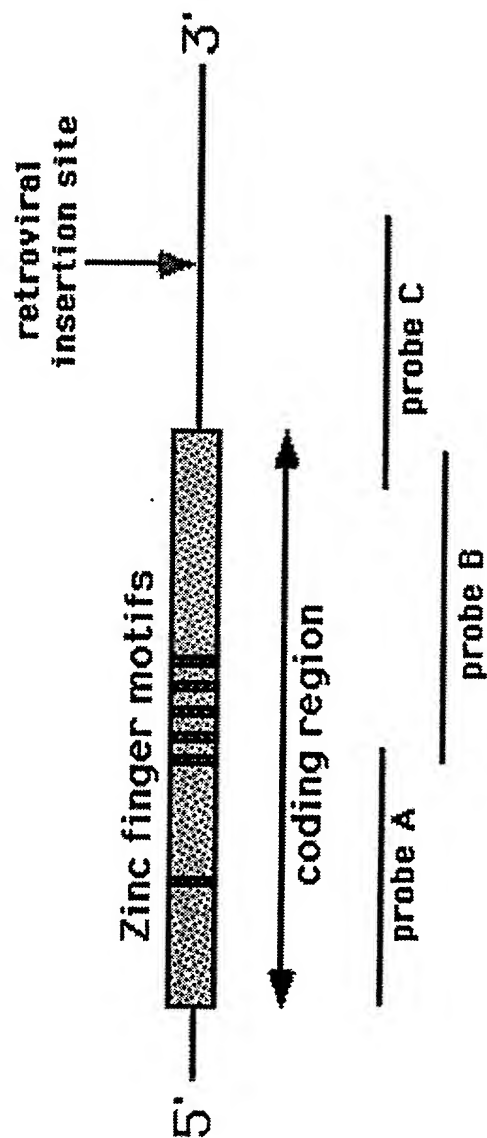


FIGURE 8.

31000 (sheet 11 of 20)

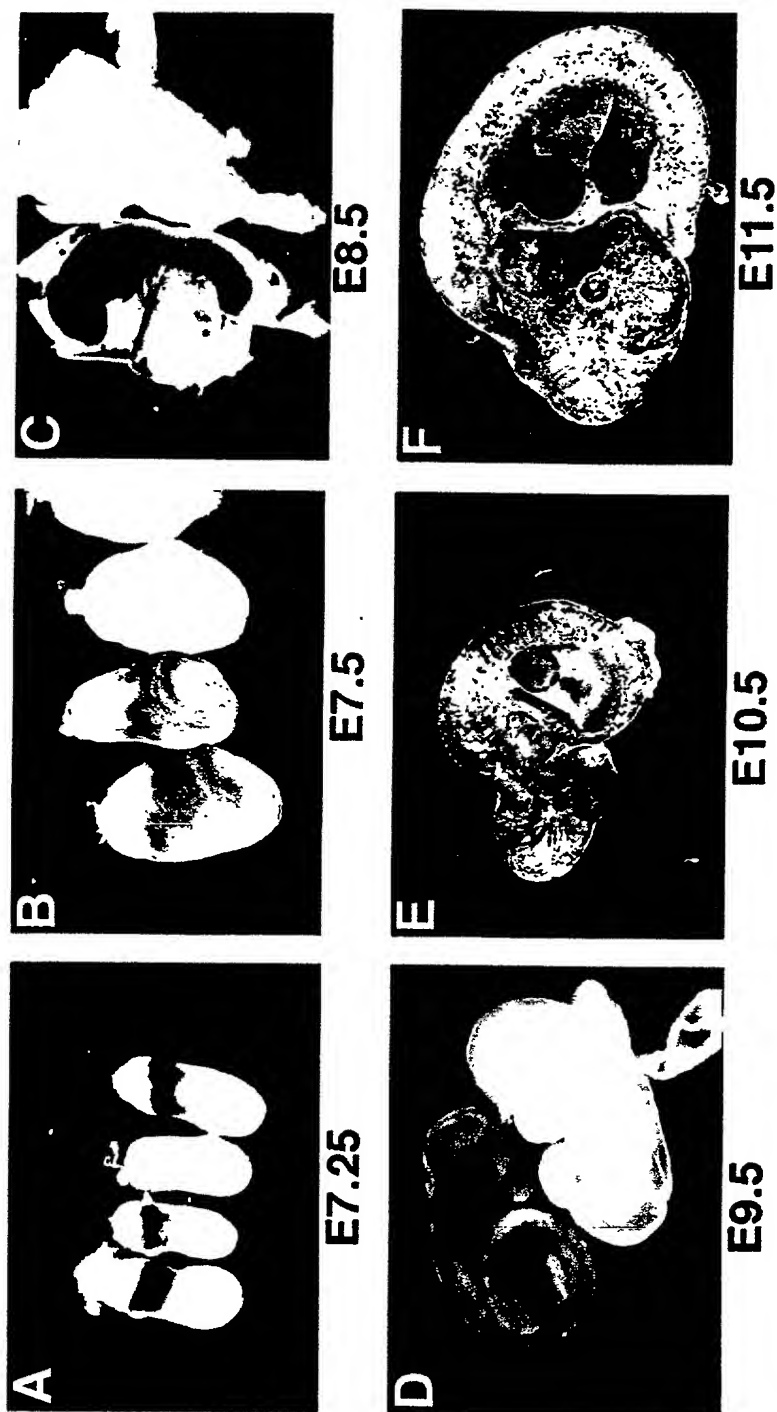


FIGURE 9.

3120r (sheet 12 of 20)

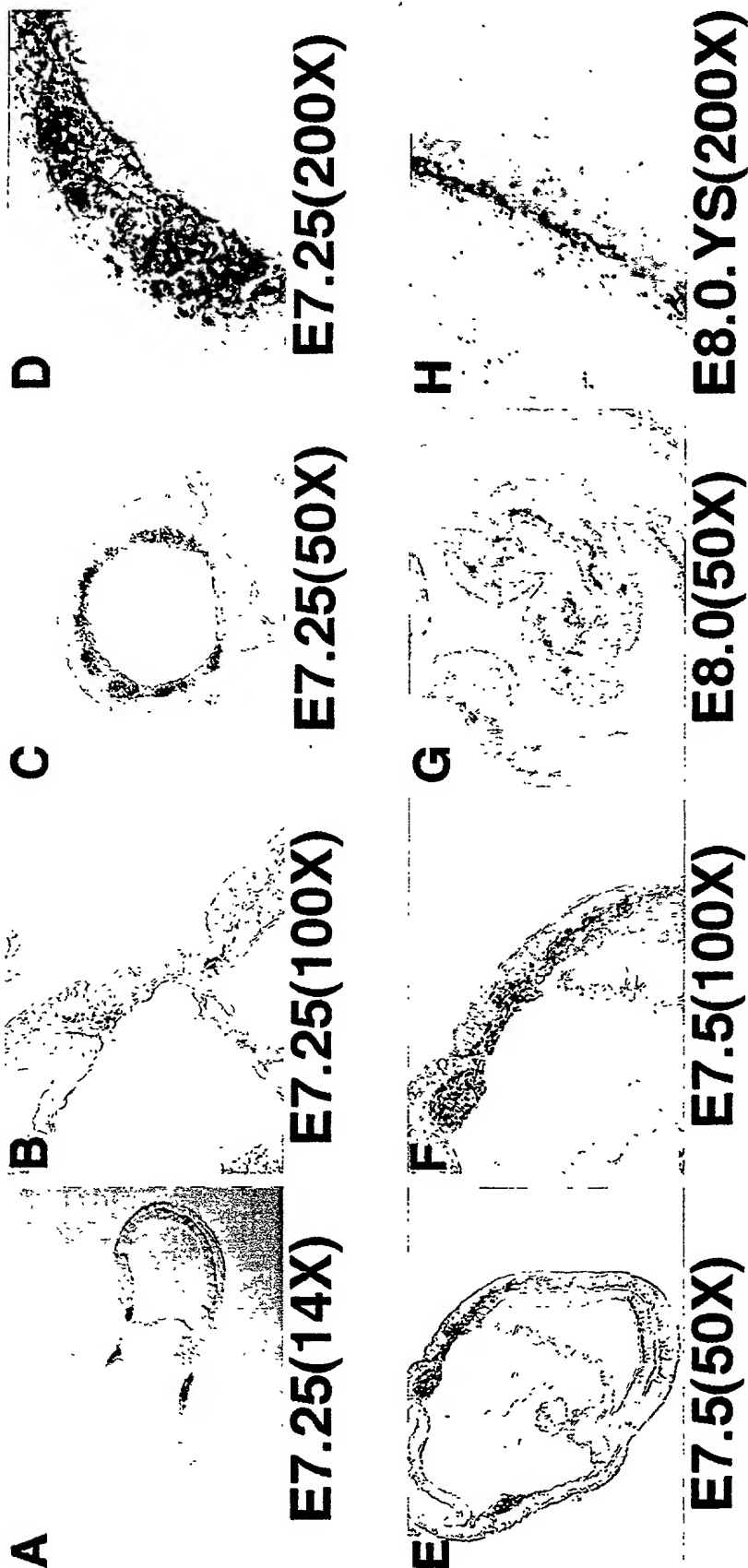


FIGURE 10.

312.0 (sheet 13 of 20)

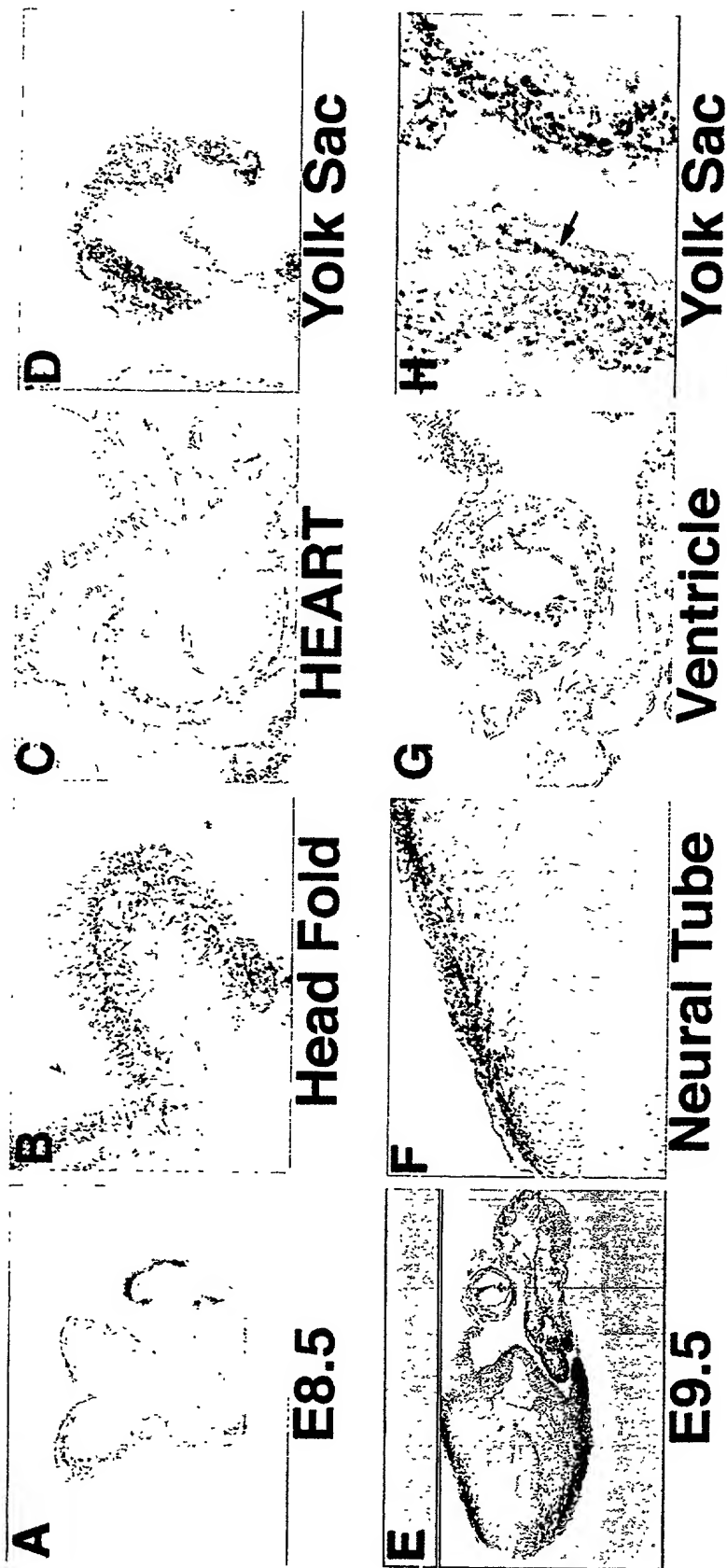


FIGURE 11.

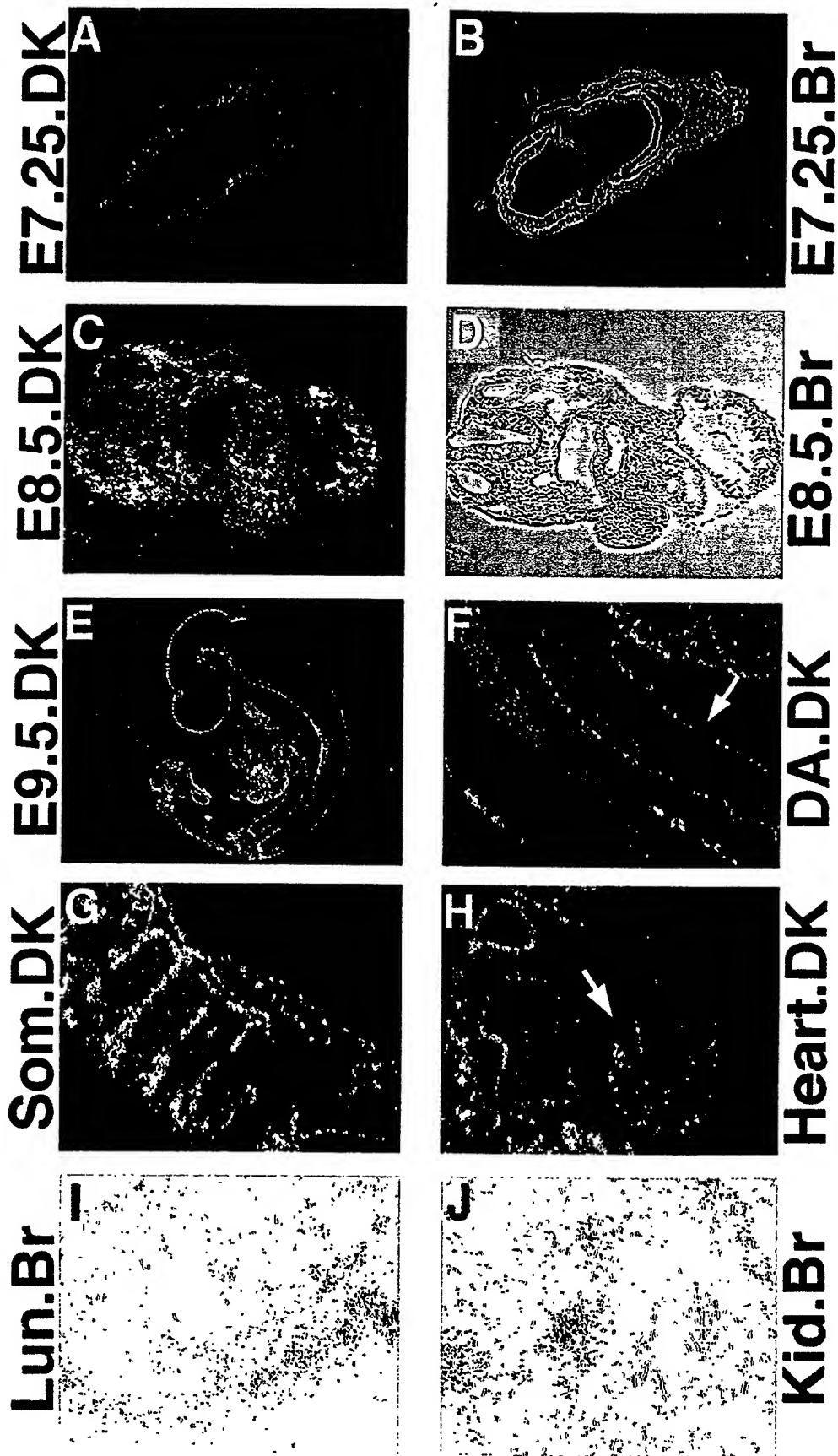
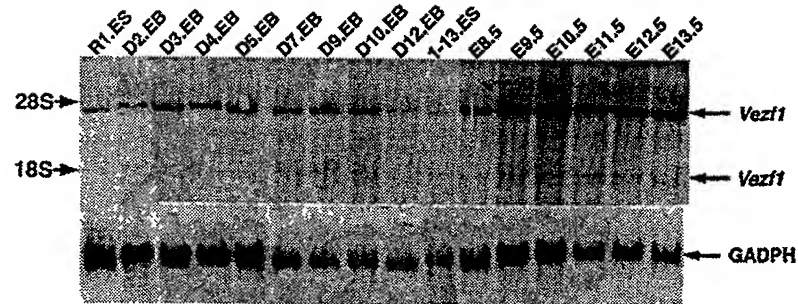


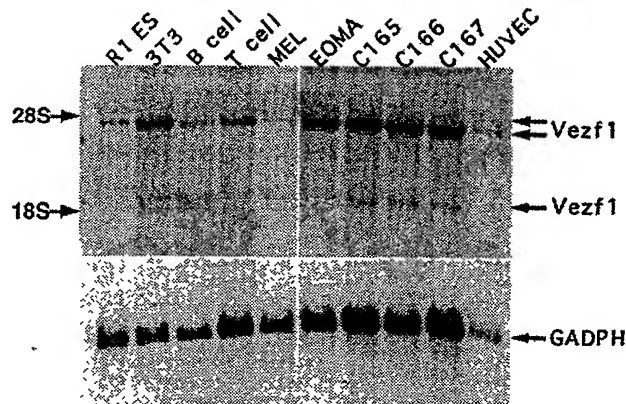
FIGURE 12.

3123 (sheet 15 of 20).

A.



B.



C.

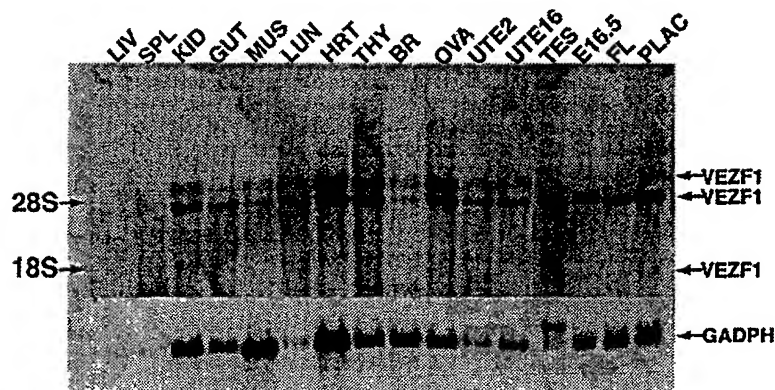


FIGURE 13.

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20270162600T

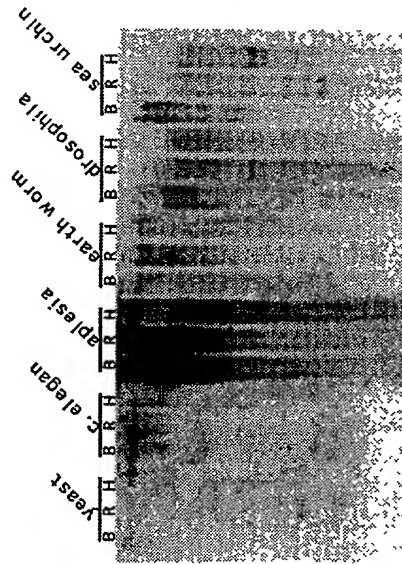
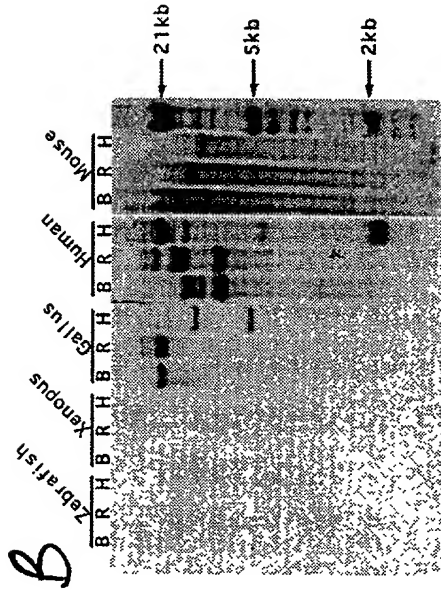
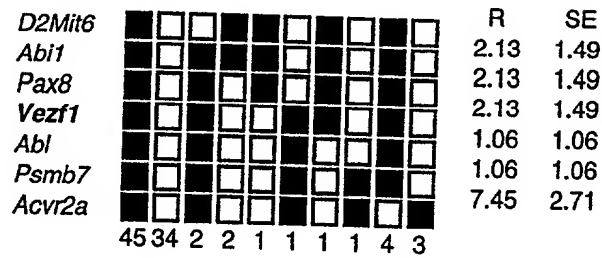


FIGURE 14.

3-200 (sheet 17 of 20)

A: Jackson BSS Chromosome 2



B: Jackson BSS Chromosome 2

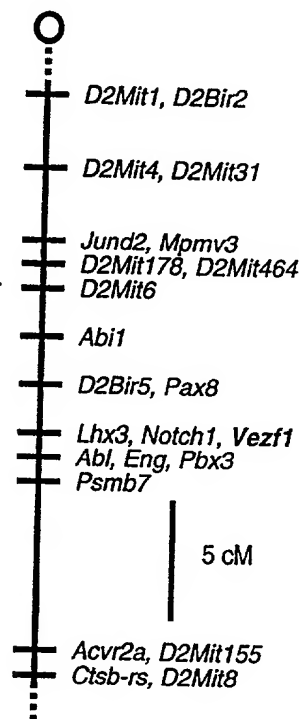
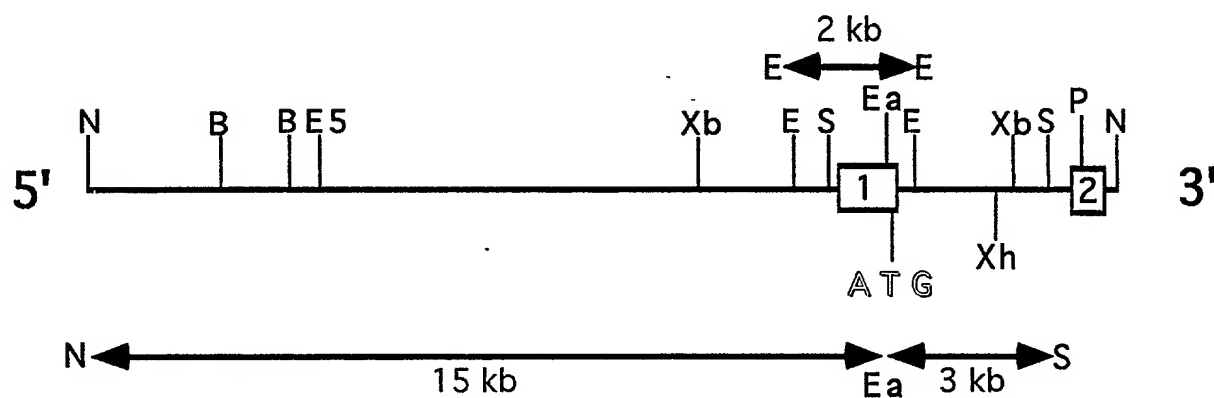


FIGURE
15.

Restriction Enzyme Map of a 20 kb Genomic DNA of the Vezf1 Gene



BamHI (B), EcoRI (E), EcoRV (E5), EagI (Ea), NotI (N), PstI (P), SacI (S), XbaI (Xb), and XhoI (Xh).

— Intronic sequence;

1 Exon 1

2 Exon 2

FIGURE 1G.

Vezf1 EXPRESSION VECTORS

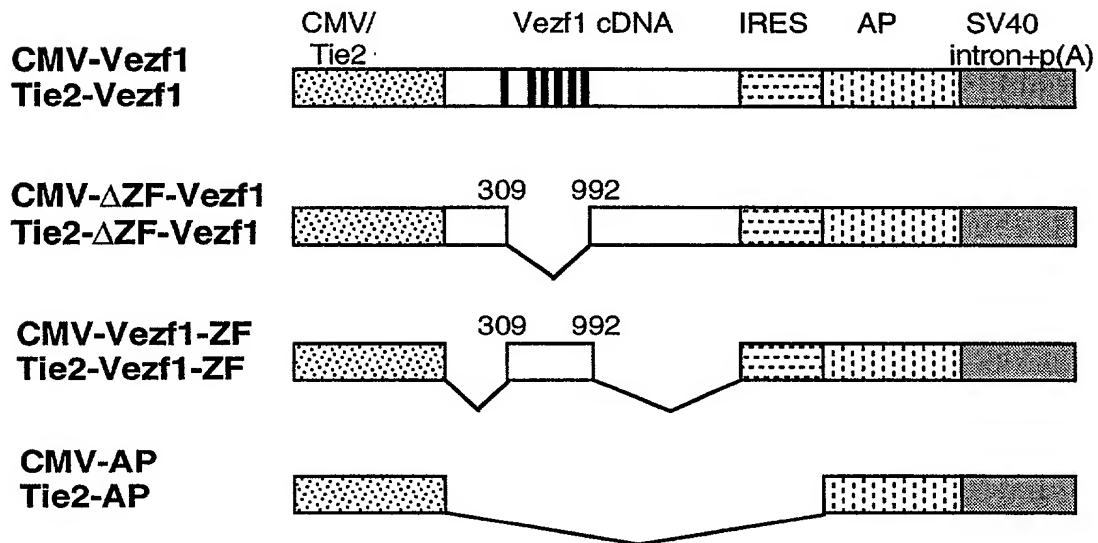


FIGURE 17.

20270-162500T

31270 (sheet 2 of 2)

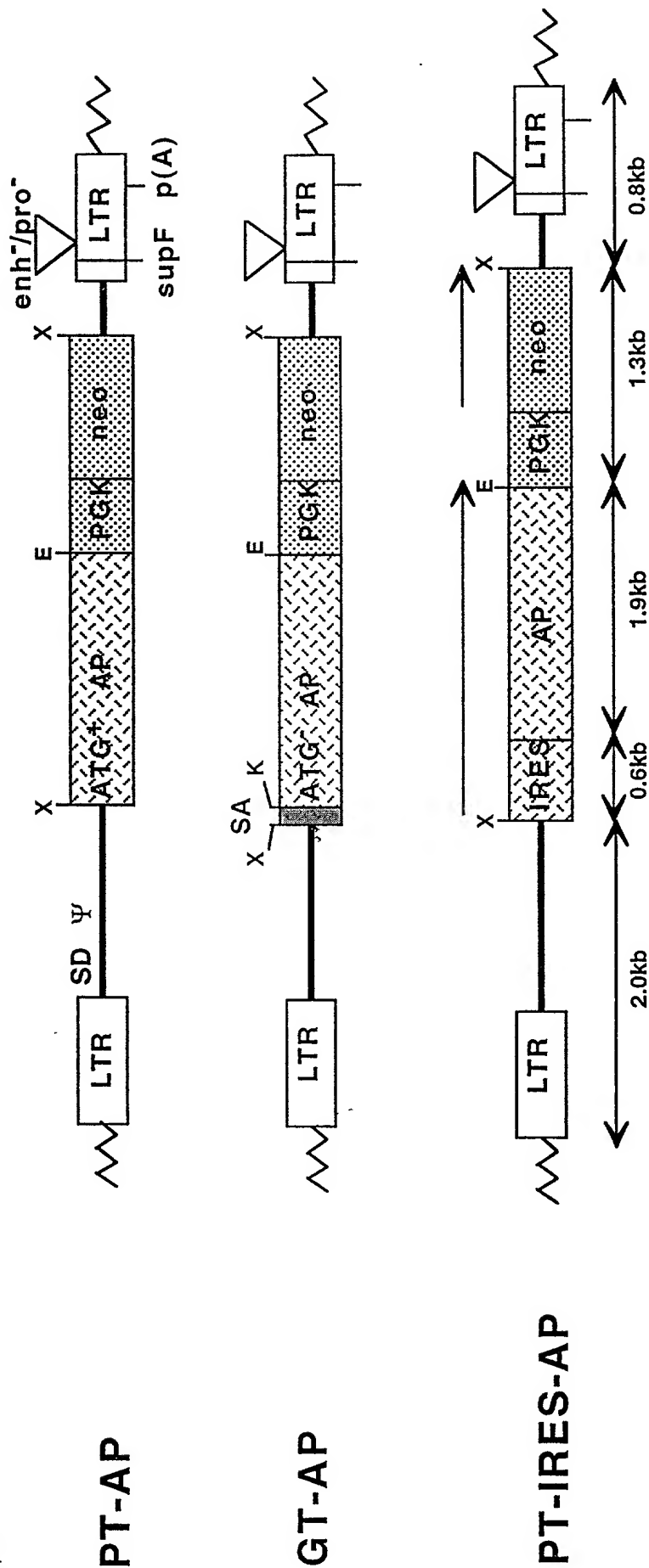


FIGURE 18.